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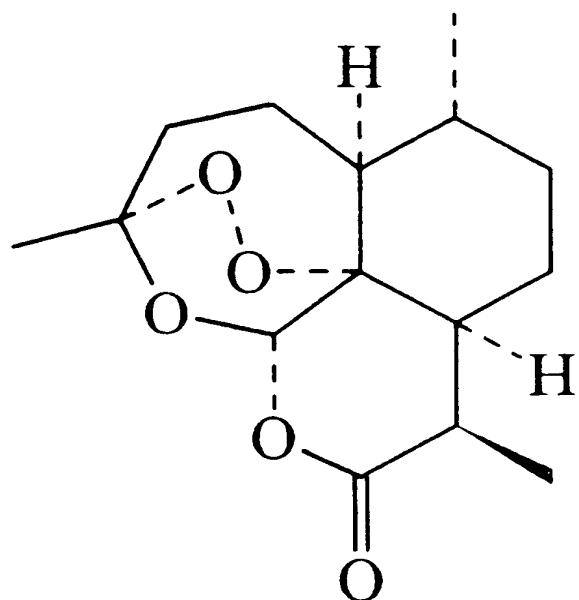


FIG. 1

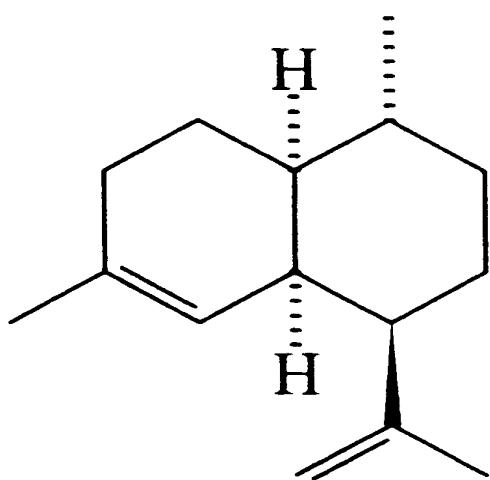
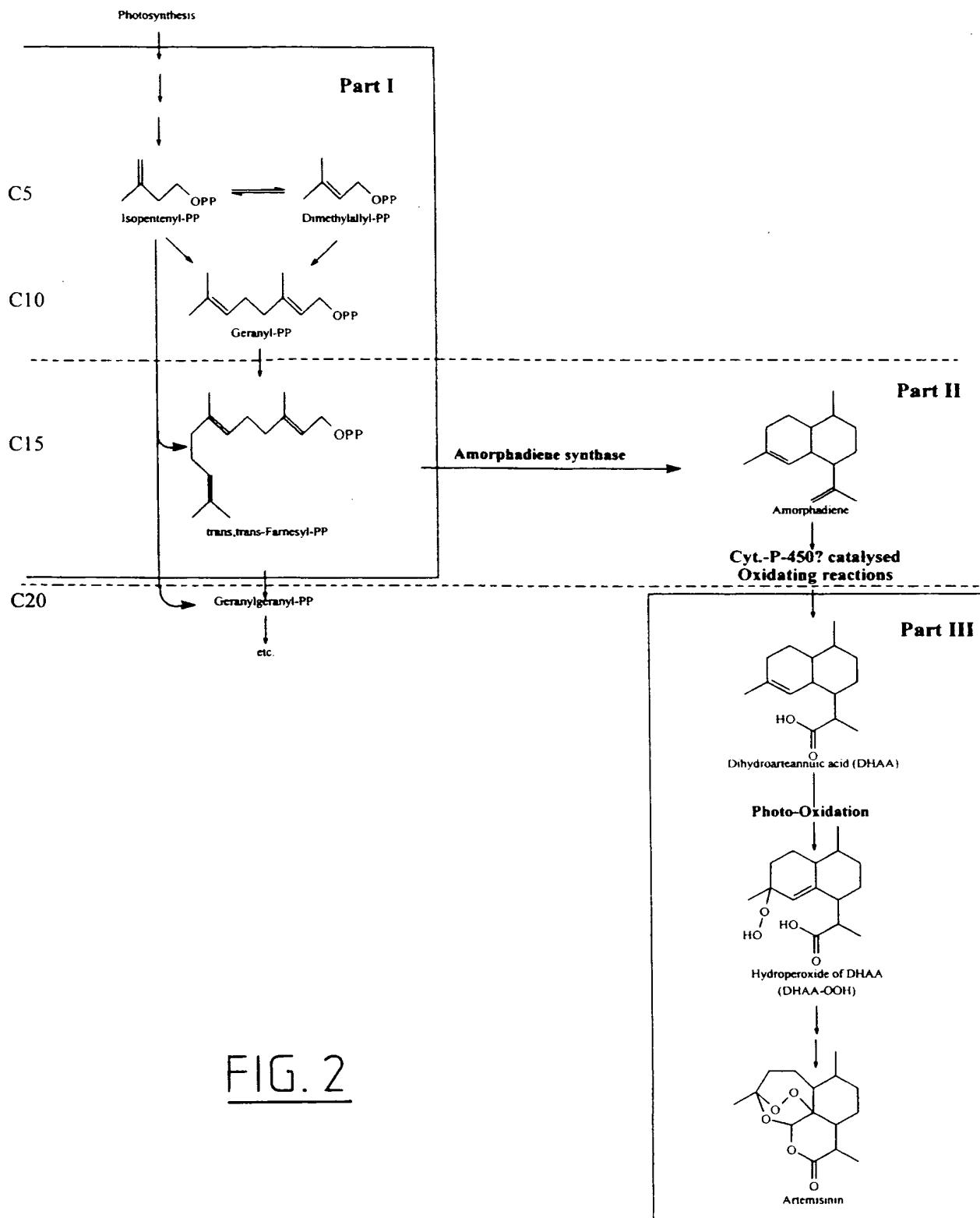


FIG. 4

FIG. 2

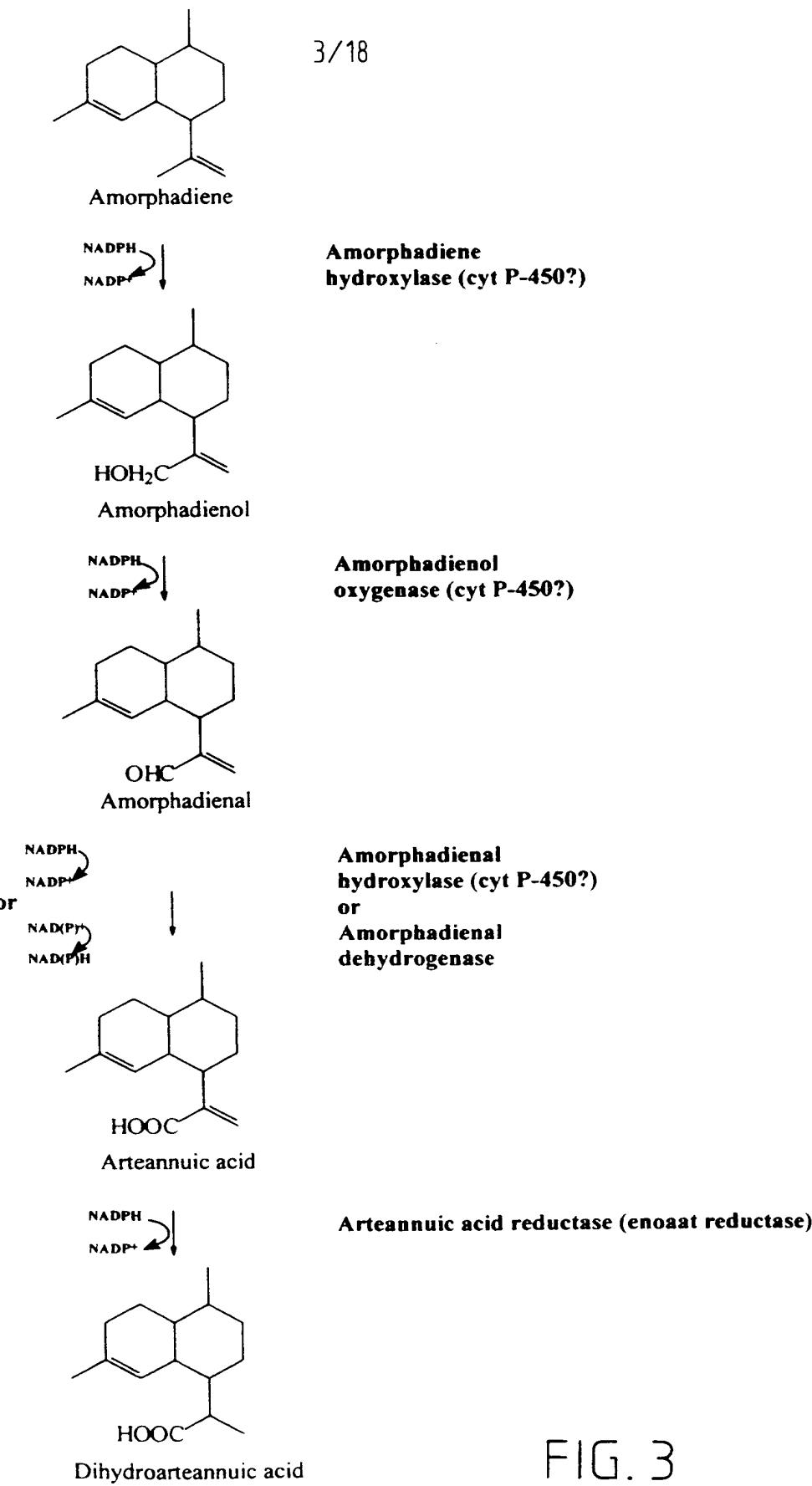


FIG. 3

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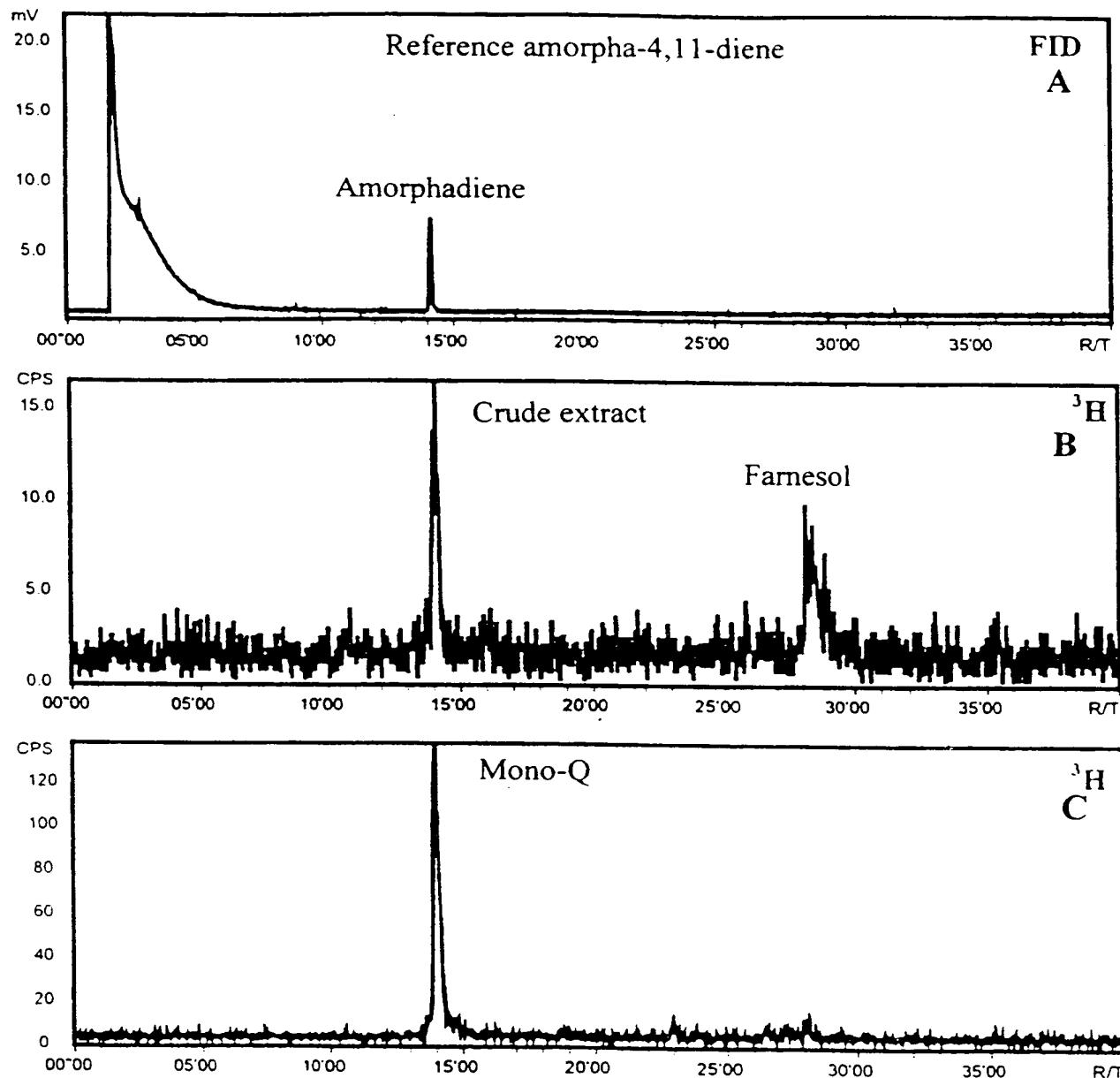


FIG. 5

09763822

PCT/EP99/06302

WO 00/12725

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Library Searched : C:\DATABASE\WITLOF.L
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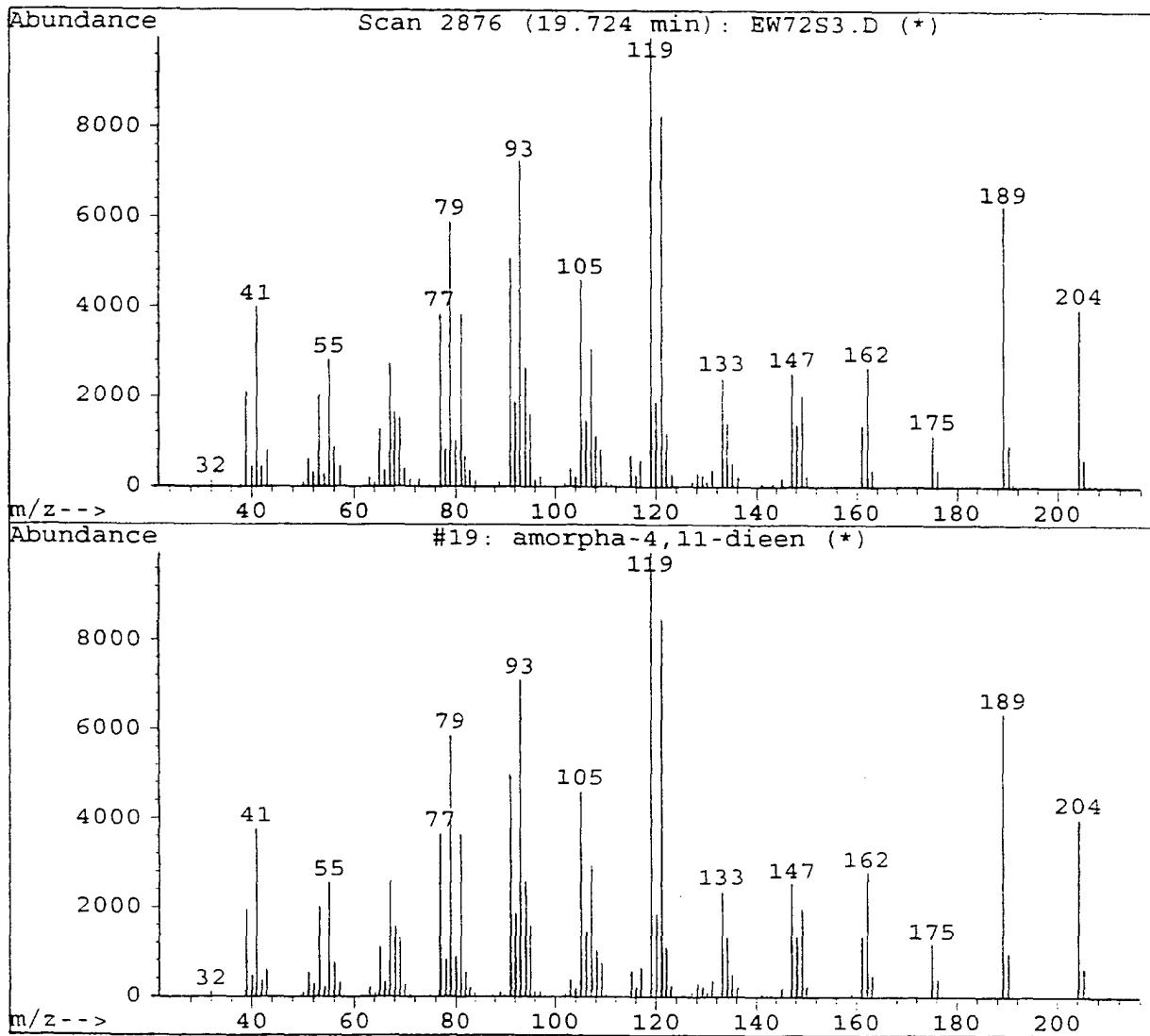


FIG. 6

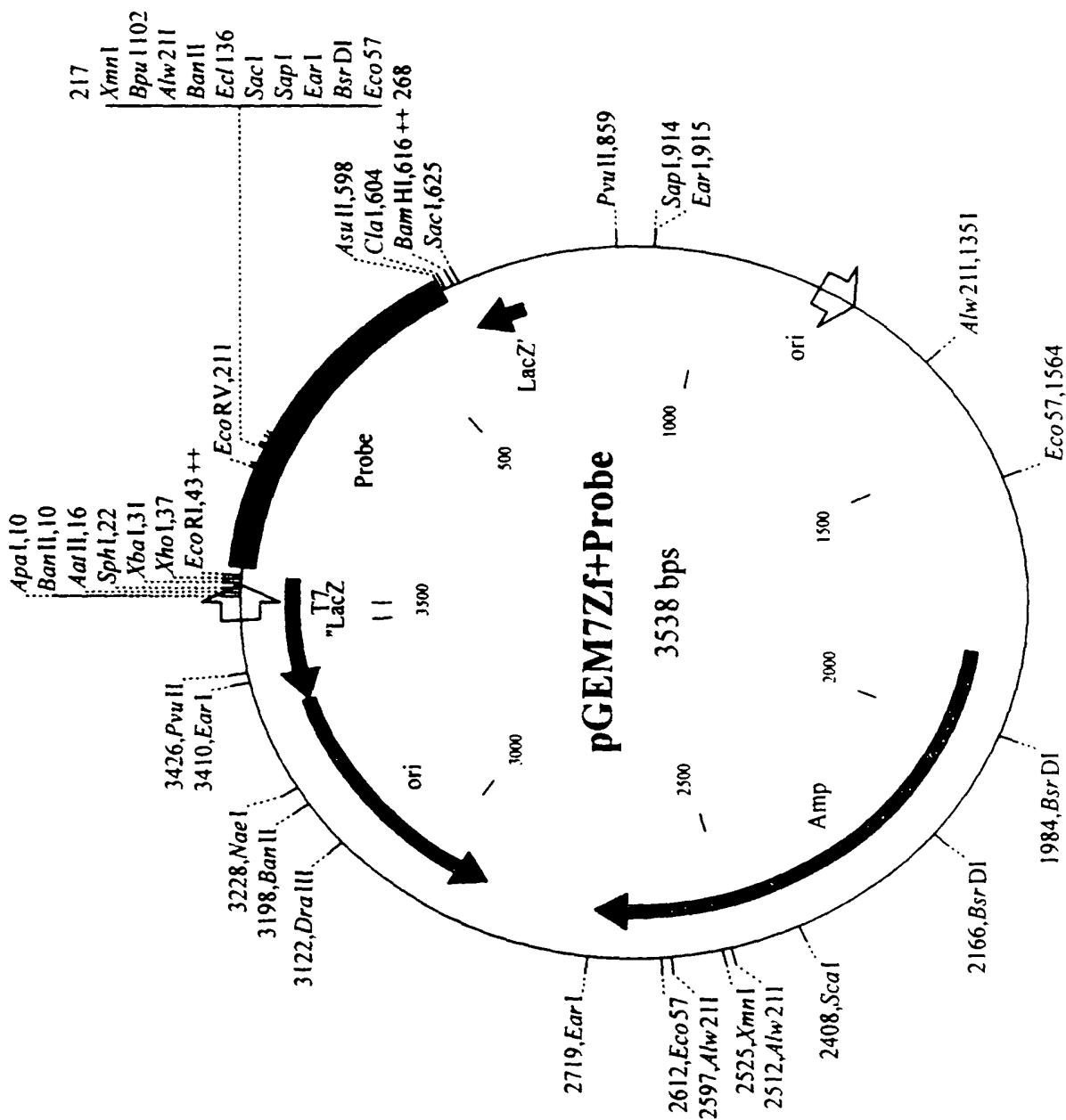


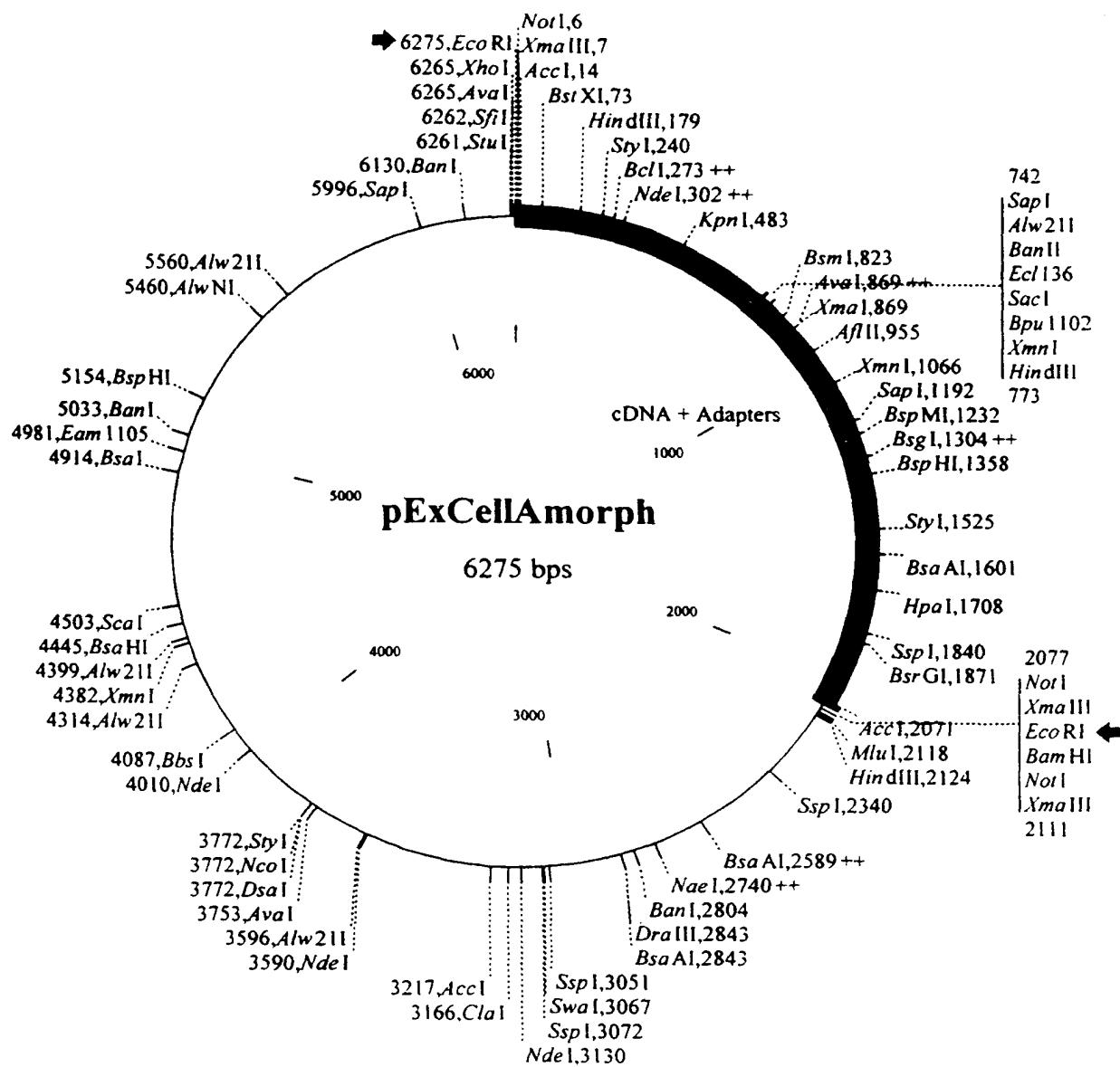
FIG. 7

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27 [gag aat ggg aaa ttt aag gaa tcg tta gct aat gat gtt gaa ggt ttg]
 D E N G K F K E S L A N D V E G
 78 ctt gag ttg tac gaa gca act tct atg agg gta cct ggg gag att ata tta
 L E L Y E A T S M R V P G E I I L
 129 gaa gat gct ctt 9gt ttt aca cga tct cgt ctg att atg aca aaa gat
 E D A L G F T R S R L S I M T K D
 180 gct ttt tct aca aac ccc gct ctt ttt acc gaa ata caa cgg gca cta aag
 A F S T N P A L F T E I Q R A L K
 231 caa ccc ctt tgg aaa agg ttg cca aga ata gag gcg cag tac att cct
 Q P L W K R L P R I E A Q Y I P
 282 ttc tat caa caa gat tct cat aac aag act tta ctt aaa ctt gct aag
 F Y Q Q Q D S H N K T L L K L A K
 333 tta gag ttc aat ttg ctt cag tca ttg cac aag gaa gag ctc agc cat gtg
 L E F N I L Q S L H K E E L S H
 384 tgc aaa tgg tgg aaa gct ttc gat atc aag aac gca cct tgt tta aga
 C K W K A F D I K K N A P C L R
 435 gat aga att gtt gaa tgg tac ttg tgg gga cta ggt tca ggc tat gag cca
 D R I V E C Y F W G L G S G Y E P
 486 cag tat tcc cgg gct aga gtt ttg ttc acg aca aaa gct gtt ata act
 Q Y S R A R V F F T K A V A V I T
 537 ctt ata gac gac acc ttc gac gct acg g [Primer B]
 L I D D T F D A T

FIG. 8

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FIG. 9

EcoR I (Not I) Adapter

```

1 aattcgcggc cgcgtcgaca aatcatgtca cttacagaag aaaaacctat
  N S R P R R Q I M S L T E E K P
  ← EcoR I Not I

51 tcgccccatt gccaacttgc ctccaaagcat ttggggagat cagttctca
  I R P I A N F P P S I W G D Q F L

101 tctatcaaaa gcaagttagag caaggggtgg aacagatagt gaatgattta
  I Y Q K Q V E Q G V E Q I V N D L

151 aaaaaagaag tgccggcaact actaaaagaa gctttggata ttcctatgaa
  K K E V R Q L L K E A L D I P M

201 acatgccaat ttgttgaagc tgattgatga aattcaacgc ctggaaatac
  K H A N L L K L I D E I Q R L G I

251 cgtatcaactt tgaacgggag attgatcatg cattgcaatg tatTTtatgaa
  P Y H F E R E I D H A L Q C I Y E

301 acatatggtg ataaactggaa tggtgaccgc tcttccttat gttccgtct
  T Y G D N W N G D R S S L W F R

351 tatgcgaaag caaggatatt atgttacatg tgatgtttc aataactata
  L M R K Q G Y Y V T C D V F N N Y

401 aagacaaaaaa tggagcgttc aagcaatcgt tagctaata gttgaaggt
  K D K N G A F K Q S L A N D V E G

451 ttgcttgagt tgtacgaagc aacttctatg aggtaacctg gggagattat
  L L E L Y E A T S M R V P G E I

501 attagaagat gctttgggtt ttacacgatc tcgtcttagc attatgacaa
  I L E D A L G F T R S R L S I M T

551 aagatgcttt ttctacaaac cccgctcttt ttaccgaaat acaacgggca
  K D A F S T N P A L F T E I Q R A

601 ctaaagcaac ccctttggaa aagttgcc aagatagagg cgccgcagta
  L K Q P L W K R L P R I E A A Q

651 cattccttc tatcaacaac aagattctca taacaagact ttacttaaac
  Y I P F Y Q Q Q D S H N K T L L K

701 ttgctaagtt agagttcaat ttgcttcagt cattgcacaa ggaagagctc
  L A K L E F N L L Q S L H K E E L

751 agccatgtgt gcaaattggtg gaaagcttgc gatataaga agaacgcacc
  S H V C K W W K A F D I K K N A

801 ttgtttaaga gatagaatttg ttgaatgcta cttttggga ctaggttcag
  P C L R D R I V E C Y F W G L G S

851 gctatgagcc acagtattcc cgggctagag tttcttcac aaaagctgtt
  G Y E P Q Y S R A R V F F T K A V

```

FIG. 10-1

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901 gctgttataa ctcttataga tgacacttat gatgcgtatg gtacttatga
 A V I T L I D D T Y D A Y G T Y
 951 agaacttaag atctttactg aagctgtga aagggtggca attacatgct
 E E L K I F T E A V E R W S I T C
 1001 tagacacact tccagaatac atgaaaccga tatacaaatt attcatggat
 L D T L P E Y M K P I Y K L F M D
 1051 acatacacag aaatggaaga atttcttgca aaggagggaa gaacagatct
 T Y T E M E E F L A K E G R T D
 1101 atttaactgc ggcaaagaat ttgtgaaaga gtttgttaga aacctgatgg
 L F N C G K E F V K E F V R N L M
 1151 ttgaagcaaa atgggcaaata gaggacaca taccaaccac tgaagagcat
 V E A K W A N E G H I P T T E E H
 1201 gatccagttg taatcattac tggcggtgct aacctgctta caacaacttg
 D P V V I I T G G A N L L T T T
 1251 ttatcttggc atgagtgata tattcacaaa agagtctgtc gaatgggctg
 C Y L G M S D I F T K E S V E W A
 1301 tctctgcacc tcctctttt agataactcg gtataacttg tcgacgccta
 V S A P P L F R Y S G I L G R R L
 1351 aatgatctca tgacccacaa ggccgagcaa gaaagaaaac atagttcatc
 N D L M T H K A E Q E R K H S S
 1401 gagccttcaa agttatatga aggaatataa tgtcaatgag gagtatgcc
 S S L E S Y M K E Y N V N E E Y A
 1451 aaaccttgcat ttacaaggaa gtagaagatg tggctgtatgataaacccga
 Q T L I Y K E V E D V W K D I N R
 1501 gagtacctca caactaaaaa cattccaagg ccgttattga tggctgtatg
 E Y L T T K N I P R P L L M A V
 1551 ctatttgtc cagtttcttg aagttcaata tgcagggaaag gataacttc
 I Y L C Q F L E V Q Y A G K D N F
 1601 cacgtatggg agacgaatac aaacatctca taaagtctct actcggttat
 T R M G D E Y K H L I K S L L V Y
 1651 cctatgagta tatgactacc aatccttcgt gcatacgcta tcaatttat
 P M S I - L P I L R A - P I N Y
 1701 tgaaagggtt aactatgcac gtctctatgg agagaatttc tcaagctatt
 I E R V N Y A R L Y G E N F S S Y

FIG. 10-2

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1751 tggtgtttct tgctggcaat aataaatcag acgcataaaa ttgtattgaa
L V F L A G N N K S D A - N C I E

1801 ctatatgccg atagctattt aaagttatta tacaactaaa atattcaaca
L Y A D S Y L K L L Y N - N I Q

1851 atggatttat actttactt tgtacaaaag caaaagtaca ctactgttat
Q W Y Y T F T L Y K S K S T L L L

1901 gtaacattt agttctatga tacttagtt acgaatcgcc ttatatacat
C N I L V L - Y F S Y E S A Y I H

1951 tgatacacctt ttatgcagaa aaccctagta aataaaaagt cgatatcttg
- Y T F M Q K T L V N K K S I S

2001 tactacacat atcgcacgaa ttccgttg ccgtttgtat ttacgatat
C T T H I A R I S V C R L Y F T I

2051 gttatataat gaatatgttt catgtgtttg ttgctaaaaa aaaaagtgcga
C Y L M N M F H V V V A - K K S R
[Not I] [EcoRI] →

2101 cgcggccgcg aa
R G R] E
EcoR I (Not I) Adapter

FIG. 10-3

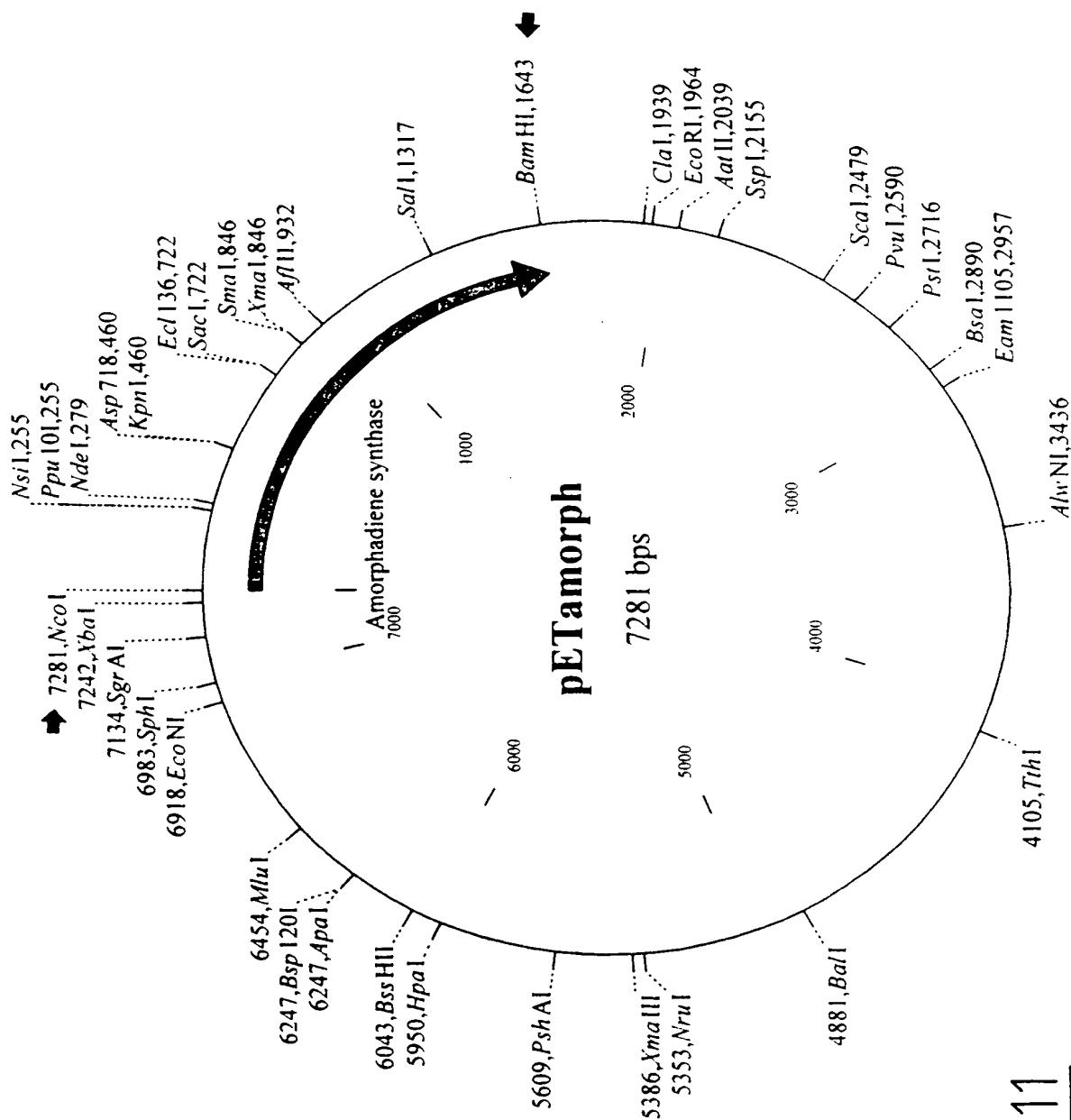


FIG. 11

[*NcoI*] 13/18

7281 ccatggcact tacagaagaa aaacctattc gccccattgc caactttcct
 T M A L T E E K P I R P I A N F P
 Start codon

50 ccaagcattt ggggagatca gtttctcatc tatcaaaaagc aagtagagca
 P S I W G D Q F L I Y Q K Q V E

100 aggggtggaa cagatagtga atgatttaaa aaaagaagtg cggcaactac
 Q G V E Q I V N D L K K E V R Q L

150 taaaagaagc ttggatatt cctatgaaac atgccaattt gttgaagctg
 L K E A L D I P M K H A N L L K L

200 attgatgaaa ttcaacgcct tggaataccg tatcaacttg aacgggagat
 I D E I Q R L G I P Y H F E R E

250 tgatcatgca ttgcaatgta tttatgaaac atatggat aactggaatg
 I D H A L Q C I Y E T Y G D N W N

300 gtgaccgctc ttccttatgg ttccgtctta tgcgaaagca aggatattat
 G D R S S L W F R L M R K Q G Y Y

350 gttacatgtg atgtttcaa taactataaa gacaaaaatg gagcgttcaa
 V T C D V F N N Y K D K N G A F

400 gcaatcgta gctaattatg ttgaagggtt gcttgagttg tacgaagcaa
 K Q S L A N D V E G L L E L Y E A

450 cttctatgag ggtacctggg gagattatat tagaagatgc tcttggttt
 T S M R V P G E I I L E D A L G F

500 acacgatctc gtcttagcat tatgacaaaa gatgctttt ctacaaaccc
 T R S R L S I M T K D A F S T N

550 cgctttttt accgaaatac aacggcact aaagcaaccc ctggaaaaa
 P A L F T E I Q R A L K Q P L W K

600 ggttgccaag aatagaggcg ggcgcgtaca ttcctttcta tcaacaacaa
 R L P R I E A A Q Y I P F Y Q Q Q

650 gattctcata acaagacttt acttaaactt gctaagttag agttcaattt
 D S H N K T L L K L A K L E F N

700 gcttcagtca ttgcacaagg aagagctcag ccatgtgtgc aaatgggaa
 L L Q S L H K E E L S H V C K W W

750 aagcttcga tatcaagaag aacgcacatt gtttaagaga tagaatttgtt
 K A F D I K K N A P C L R D R I V

800 gaatgctact tttggggact aggttcaggc tatgagccac agtattcccg
 E C Y F W G L G S G Y E P Q Y S

850 ggcttagagtt ttcttcacaa aagctgttgc tggataact ctatagatg
 R A R V F F T K A V A V I T L I D

FIG. 12-1

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900 acacttatga tgcgtatggc acttatgaag aacttaagat ctttactgaa
 D T Y D A Y G T Y E E L K I F T E
 950 gctgttgaaa ggtggtcaat tacatgctta gacacacttc cagaatacat
 A V E R W S I T C L D T L P E Y
 1000 gaaaccgata tacaaattat tcataggatac atacacagaa atggaagaat
 M K P I Y K L F M D T Y T E M E E
 1050 ttcttgcaaa ggagggaaga acagatctat ttaactgcgg caaagaattt
 F L A K E G R T D L F N C G K E F
 1100 gtgaaagagt ttgttagaaa cctgatggtt gaagcaaaat gggcaaata
 V K E F V R N L M V E A K W A N
 1150 gggcacacata ccaaccactg aagagcatga tccagttgtatcattactg
 E G H I P T T E E H D P V V I I T
 1200 gcggtgctaa cctgcttaca acaacttggtt atcttggcat gagtgatata
 G G A N L L T T T C Y L G M S D I
 1250 ttccacaaaag agtctgtcgat atgggctgtc tctgcacccctc ctcttttag
 F T K E S V E W A V S A P P L F
 1300 atactcaggt atacttggc gacgcctaaa tgatctcatg acccacaagg
 R Y S G I L G R R L N D L M T H K
 1350 ccgagcaaga aagaaaacat agttcatcgat gccttggaaat ttatatgaag
 A E Q E R K H S S S S L E S Y M K
 1400 gaatataatg tcaatgagga gtatgccaa accttgattt acaaggaagt
 E Y N V N E E Y A Q T L I Y K E
 1450 agaagatgtg tggaaagata taaaccgaga gtacctcaca actaaaaaca
 V E D V W K D I N R E Y L T T K N
 1500 ttccaaggcc gttattgtatc gctgtatct atttgcgcgc gtttcttgc
 I P R P L L M A V I Y L C Q F L E
 1550 gttcaatatg cagggaaagga taacttcaca cgtatgggag acgaaata
 V Q Y A G K D N F T R M G D E Y
 1600 acatctcata aagtctctac tcgttatcc tatgagtata tgaggatcc
 K H L I K S L L V Y P M S I - G S
 Stop codon

FIG. 12-2

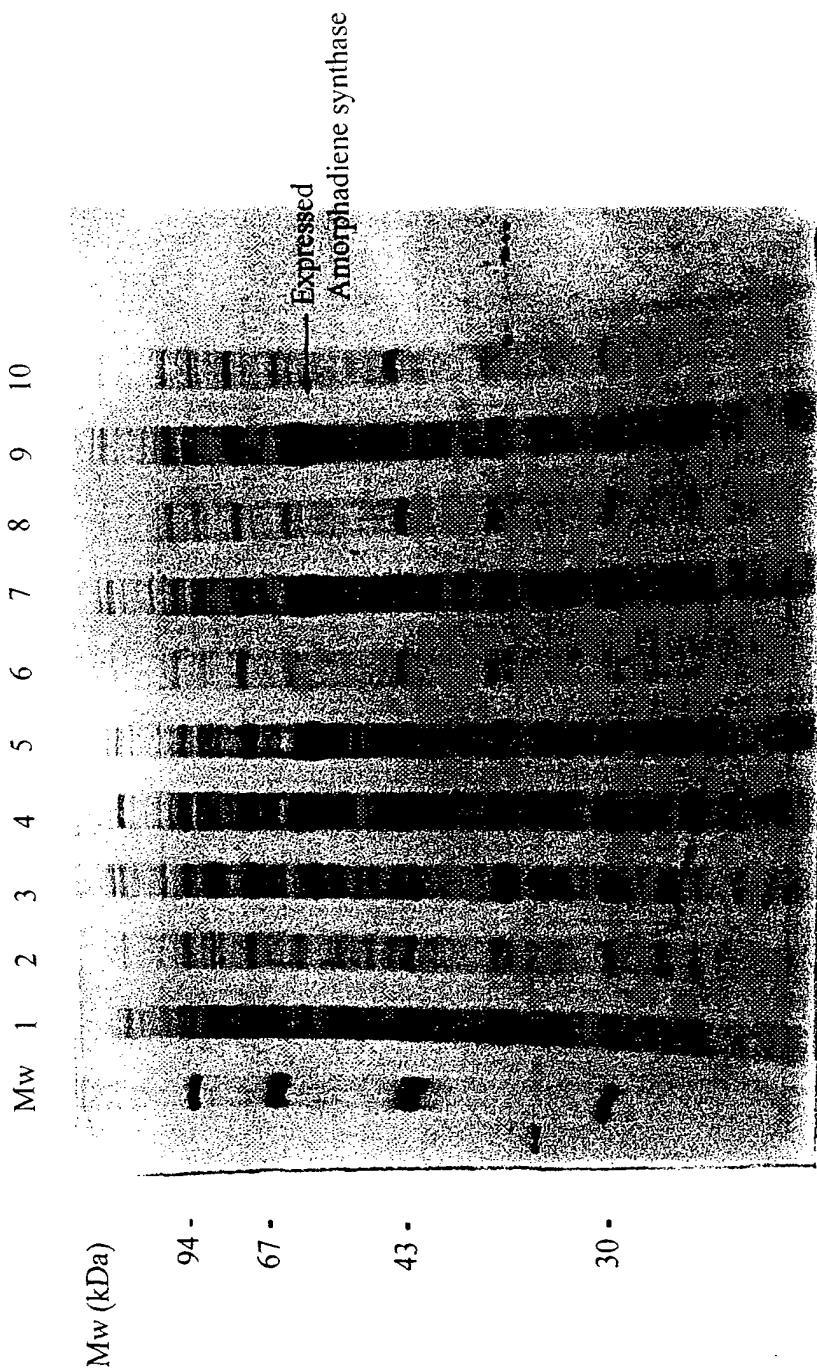


FIG. 13

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WITLOF\BW2751B

monster 1 + amorph, farnesol

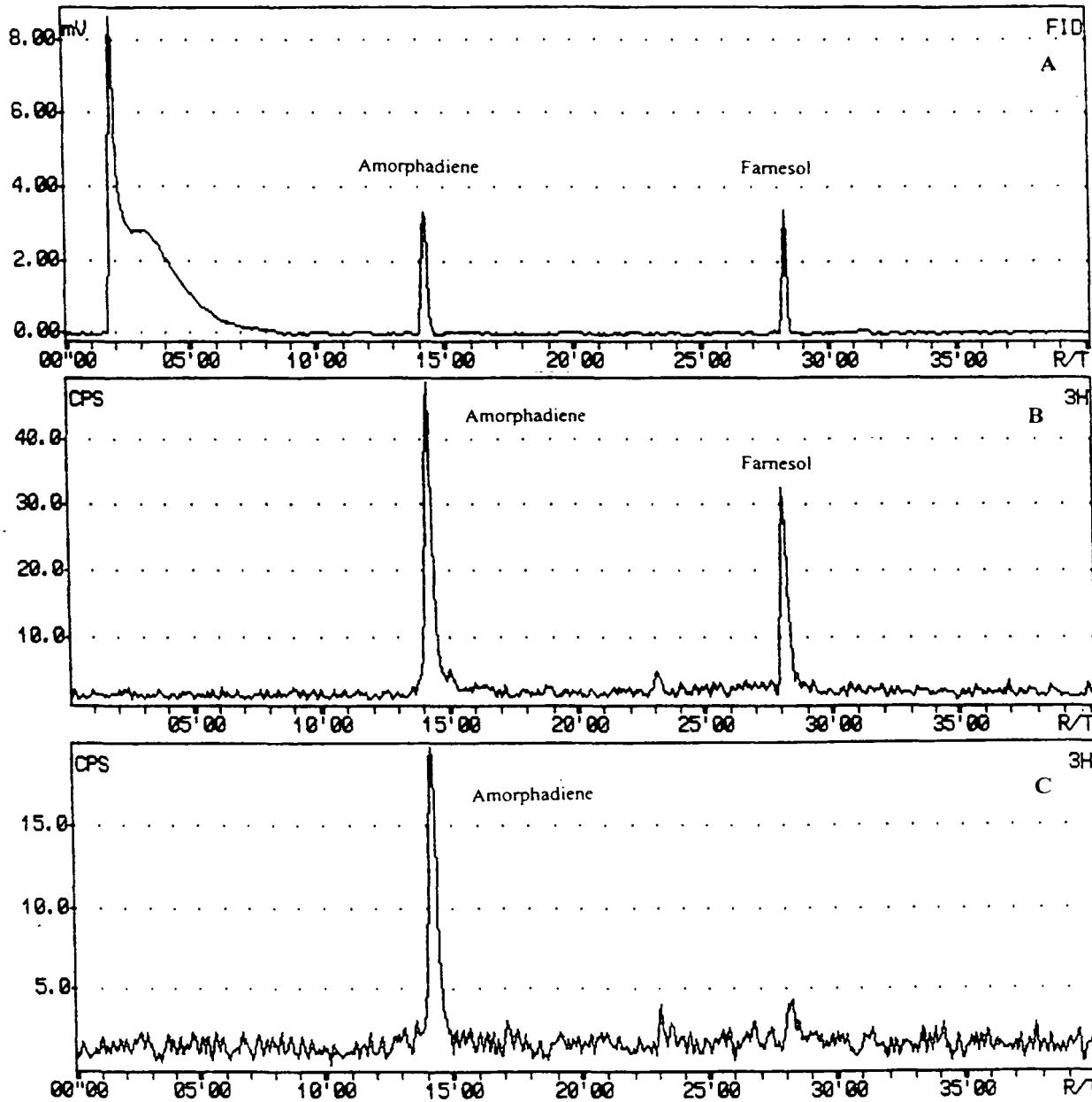
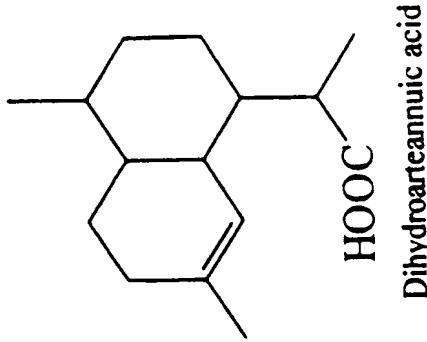
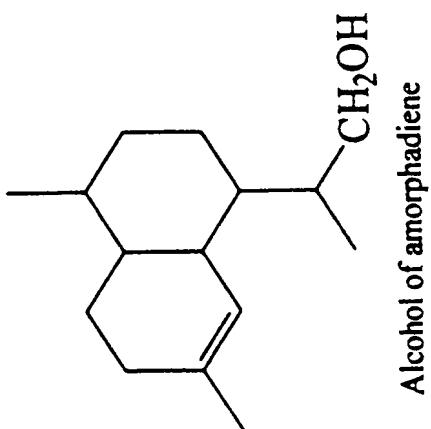


FIG. 14



PDC/H₂O



1.) Sterically hindered
BH₃ (also enatio-
selective)
2.) NaOH/H₂O₂

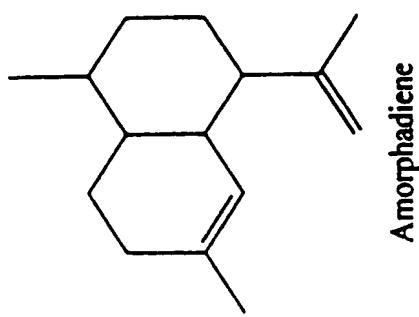


FIG. 15

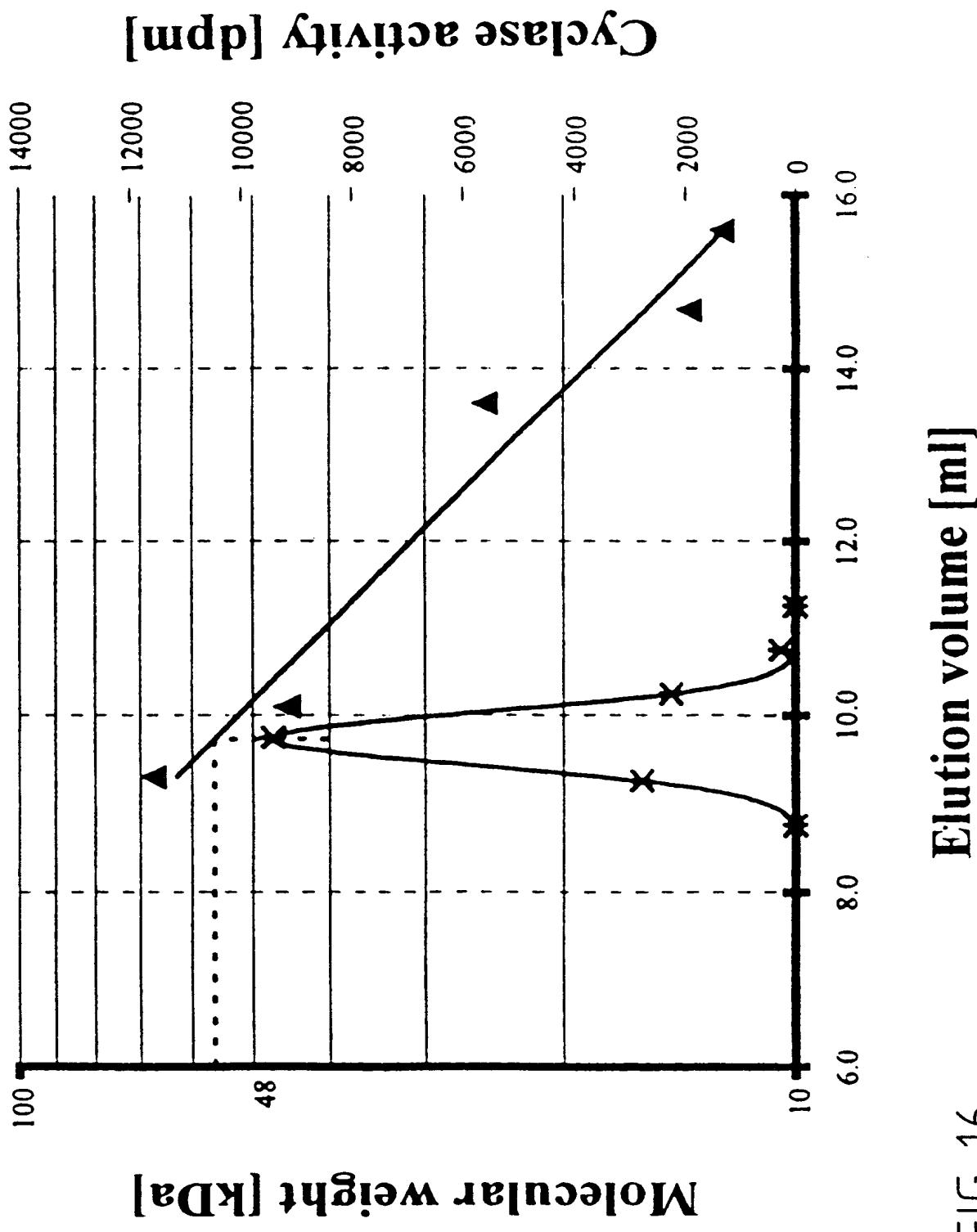


FIG. 16